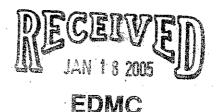


STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd . Richland, WA 99352 . (509) 372-7950

January 13, 2005

Mr. Roy J. Schepens Office of River Protection United States Department of Energy P.O. Box 450, MSIN H6-60 Richland, Washington 99352



Dear Mr. Schepens:

Re: Washington State Department of Ecology Review of the Double-Shell Tank (DST)
Permit Application, Rev. 0b, Notice of Deficiency (NOD) Response Table Submitted
to Ecology on June 9, 2004

The Washington State Department of Ecology (Ecology) reviewed a portion of the Response Table (as referenced in Hanford Federal Facility Agreement and Consent Order Figure 9-2, Box 4) for the DST Permit Application Rev. 0b. Enclosed are Ecology's NOD responses on Chapter 11, miscellaneous comments, and the State Environmental Policy Act of 1971 (SEPA) Checklist. Ecology will stage submittals of the remaining chapter responses per a discussion with your tank farm contractor.

Please contact Ecology to set up meeting times and location for the NOD workshops for the attached chapters. If you have any questions regarding this letter, please contact, me at 372-7912 or Jeff Lyon at 372-7914.

Sincerely,

Brenda K. Jentzen

Permit Lead, Double Shell Tank System

Nuclear Waste Program

2 Enclosures

cc: Jim Rasmussen, USDOE Edward Aromi, CH2M Moussa Jarayssi, CH2M Phil Miller, CH2M

Stuart Harris, CTUIR

Pat Sobotta, NPT Russell Jim, YN

Todd Martin, HAB Ken Niles, ODOE cc/enc: Richard McNulty, USDOE Kathy Tollefson, CH2M

Ted Wooley, CH2M

Ro Vison, PAC

Administrative Record: DST; Tank Waste Storage

CH2M Correspondence Control

Environmental Portal



No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
1.	Chapter 11 General	The closure chapter is missing the detail required in a closure plan. See regulatory citations noted. Ecology stated in the previous informal discussion the closure plan should describe how a tank, pipeline, catch tank, diversion box, double contained receiver tank, etc. will be closed.	WAC 173-303-610 (3) & (8), WAC 173-303-640
		Response: reject, the level of detail provided it what is available at this time. DST system closure is a least 20-30 years away.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using TPA Milestone M-062-00 (12/31/28) for the secession of the DST operations.	
2.	General	Waste retrieval is a path to closure and it is considered a closure action. Therefore, describe how the DSTs waste will be retrieved and transferred to the Waste Treatment Plant.	
· .		Response: reject, the level of detail provided it what is available at this time. DST system closure is a least 20-30 years away.	
		Ecology Response: Reject. This description should be in the Chapter 4 for operations. If this information is not available at this time, the permit should be modified to describe the waste retrieval and transfer to any treatment facility before this process is started.	
3.	General	At this time, there is no reason to assume that the DST system cannot be clean closed. The DST system appears to currently be sound and this assumption will be confirmed with the required certified integrity assessment (M-48). The regulation intended that facilities make every effort to clean close and only if clean closure cannot be achieved will landfill and post closure care be allowed for a nonregulated unit.	WAC 173-303- 640 (8), WAC 173-303- 610 (2), WAC 173-303-
· · · · · · · · · · · · · · · · · · ·		Response: reject, it is possible that the tanks themselves could be clean closed however it is difficult to assume that all ancillary equipment and any potential impacted environmental media will be clean closed as well.	665 (6)
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using TPA Milestone M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
4.	General	Too many references to the SST closure actions. This is an application for the DST system and it must meet required closure regulation and description for the DST system. References to the SST closure actions in the DST permit will require a permit modification to the DST permit when the SST closure actions change. Correct text to describe the DST system.	WAC 173-303- 610 (3) & (8), WAC 173-303- 640
		Response: reject; description/ references to SST retrieval activities is intended to clarify potential closure methodology for the DSTs. Successful closure technology developed for the SSTs may be utilized as applicable for the DST system. Predetermination of exact closure activities for DSTs is impractical since actual closure will likely not take place for another 30-40 years.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
5.	General	Change text to include all required Washington Administrative Code (WAC) citations. Closure activities will include testing of contaminated environmental media to determine the extent of contamination according to WAC 173-303-610(2)(b). Soil clean up standards will comply with WAC 173-303-610(2).	WAC 173-303- 610
		Response: reject, Section 11.2 (Closure Performance Standards) cites WAC-173-303-610(2) directly. Any applicable requirements under this subsection will be followed at the time of closure.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
6.	General	Provide a closure strategy for pipelines and other ancillary equipment.	·
•		Response: reject, the level of detail provided it what is available at this time. DST system closure is a least 20-30 years away.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
. 7.	General	Provide a decision flow chart for closure of the DST system to include all ancillary equipment including pipelines.	
,		Response: reject, the level of detail provided it what is available at this time. DST system closure is a least 20-30 years away.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
8.	General	Include all Washington Administrative Code citations in the text for closure. All DST components will be closed in accordance with WAC 173-303-610 (2) - (6), -640(8), and -806 (4) (a).	WAC 173-303- 610 (2) - (6),
		Response: partial accept, chapter will be reviewed to assess appropriateness of existing WAC citations.	WAC 173-303- 640(8), WAC 173-303-
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	806 (4) (a)
9.	General	Remove all wording in this chapter that use unenforceable language such as may, might, etc. Replace with shall.	
		Response: reject, use of words like "may" and "might" convey the inherent uncertainty that comes with discussing closure of a system that will not likely happen for decades.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
10.	Page 11-1, line 6	Define all acronyms the first time like WUS.	
		Response: accept will define all acronyms appropriately.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
11.	Page 11-1, line 8	Correct text to state Appendix 11B. Appendix 4E does not identify components to be taken out of service on or before June 30, 2005.	:
		Response: accept, will change 'Appendix 4E' to 'Appendix 11B'	
		Ecology Response: Accept; Appendix 11B will become Appendix 4E as Chapter 11 will become a compliance schedule.	
12.	Page 11-1, line 11	Change health-based risk numbers regulatory citation to WAC 173-303-610 (2) (b). Response: accept, will revise accordingly.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
13.	Page 11-1, line 14	Change wording of sentence from "As technology" to If technology. Technology may be developed or already be in place to adequately decontaminate soil. Response: accept, will change "As" to "If"	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
14.	Page 11-1, line 17	Remove the following sentence as it is not accurate. "Based on SST retrieval/closure operations, closure for the DST system may not occur for 30- 40 years." The DST system includes all the components including the components that will be taken out-of-service prior to 2005. These components are required to close in accordance with WAC 173-303-610 (4)(a)(b). "The owner/operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of dangerous wastes.	WAC 173-303-610 (4)(a)(b)
		Response: reject Line 17 is accurate with regard to full "RCRA closure" of the DST system. Necessary sections of DST system should remain operational until satisfactory retrieval of the SSTs has been achieved. M-48-07 establishes preclosure activities for DST components not used past June 30, 2005. Because of the size and complexity of the DST system closure, performance standards and activities will likely be established through a series of TPA milestones. The DST closure plan as written as a placeholder until resources can be appropriately funneled towards closure. The plan attempts to provide closure concepts based upon the current condition and future use of the unit. Moreover WAC-173-303-610 (4)(b)(i) allows an extension to the closure schedule based on the probability that closure will go beyond six months,. Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule	
15.	Page 11-1, line 18	using M-062-00 (12/31/28) for the secession of the DST operations. Technological advancements may drive other more suitable closure options - What does this sentence mean? The closure chapter has defined three (3) closure pathways clean, modified and landfill. Are there others? Rewrite for clarity and enforceability. Response: accept will change "closure options" to "closure approaches". Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
16.	Page 11-1, line 19	Remove all references to cost effectiveness from the chapter or show where the dangerous waste regulations address cost effectiveness as a criterion for developing final closure activities. Response: accept, reference to "cost effectiveness" will be removed Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
17.	Page 11-1, line 28, 29	Remove the following sentence: "Based on the timing for closure much of the closure strategy presented in this chapter is at a conceptual level."	
		Response: accept, sentence will be removed.	•
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	·
18.	Page 11-1, line 30	Add the following regulatory citations WAC 173-303-640 (8), -806(4)(a)(xiii). Response: accept, will add citations.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
19.	Page 11-1, line 34	Change the sentence to: The DST system will comply with the closure performance standards required by WAC 173-303-610 (2).	
		Response: accept, will revise text to state the following: "The DST system will comply with the closure performance standards required by WAC 173-303-610 (2) as appropriate"	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
20.	Section 11.2.1	This section does not tell how the need for further maintenance will be accomplished. The statement that "the unit specific requirements will be developed as closure plans are developed." does not meet the WAC -610 (3) (a). A closure plan must be submitted with the permit application. The DST system is a separate "assumed" compliant system that may follow a different closure path than the SSTs. Submit a complete closure plan.	WAC 173-303- 806 (4)(a)(xiii)
		Response: reject, irrespective of the type of closure used for the DST system (clean, landfill, integration with CERCLA, etc) the closure performance standards will be met. Specific details for meeting performance standards will be developed prior to closure based on approval by Ecology.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
21.	Section 11.2.2	This section does not explain how Human Health and the Environment will be protected. Describe how the closing of the DSTs meet the closure performance standards to protect human health and the environment?	
		Response: reject, irrespective of the type of closure used for the DST system (clean, landfill, integration with CERCLA, etc) the closure performance standards will be met. Specific details for meeting performance standards will be developed prior to closure based on approval by Ecology.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
22.	Section 11.3 Page 11-2, line 19-21	Remove the following sentence: "Due to the uncertainty associated with the schedule for closure, numeric clean-up standards for soil groundwater and air will be determined closer to the actual time of closure." Replace the sentence with the following: The soil clean-up standards will comply with WAC 173-303-610(2)(b)(i).	WAC 173-303- 610(2)(b)(i)
4		Response: accept, will revise text accordingly.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
23.	Page 11-2, line 23-24	Submit numeric clean up levels using WAC 173-340 MTCA Method B. (These have been developed for SST's and should be available and applicable for DSTs.)	WAC 172-303- 610 (2)
,		Response: Numeric cleanup levels submitted for the SSTs will be evaluated for use for the DSTs. Method B levels are usually synominous with clean closure, however the level of closure at the DSTs has not yet been decided.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
24.	Page 11-2, line 24	Replace the sentence with: Clean-up of contaminated soil shall use a permanent solution to the maximum extent practicable (WAC 173-340-360 (2)(b)(i) and -360(3)). If not all contaminated soils can be practicably removed or decontaminated then post closure care must be preformed in accordance to WAC 173-303-665(6) and the tank system must meet the requirements specified in WAC 173-303-610 and -620.	WAC 173-340- 360 (2)(b)(i), - 360(3), WAC - 640 (8) (b)
		Response: partial accept, references to WAC-173-303-665(6) and -610 will be added. WAC-173-360 and WAC-173-303-620 do not apply to the DSTs; WAC-173-360-100	
		"The purpose of this chapter is to address the serious threat posed to human health and the environment by leaking underground storage systems containing petroleum and other regulated substances."	
		WAC-173-360-120	
		"Regulated substance" means:	
		Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under Subtitle C of the Federal Solid Waste Disposal Act, or a mixture of such hazardous waste and any other regulated substances);" Based on the stated purpose of WAC-173-360 and definition of "regulated substance" this requirement is not applicable	
-		General condition II.H.3 exempts the Permittees from WAC-173-303-620.	
•		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
25.	Page 11-2, line 25-27	Remove the sentence: "Areas of the DST system with soil contaminated above numeric stds etc." Response: accept, will remove sentence.	WAC 173-340- 360(3)
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
26.	Page 11-2, line 29-30	Substantiate the statement that any ground water contaminated under the DSTs is thought to be migrating from leaking SSTs.	
		Response: to date most evidence regarding tank leakage is associated with the leaking SSTs. Therefore it is very likely that ground water contamination found under the DST system due to tanks leaking would be from the SSTs	·
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations. The compliance schedule needs to include the schedule for the development and submittal of the post closure groundwater monitoring plan.	
27.	Page 11-2, line 30-32	Remove the sentence: "However ground water monitoring will be conducted etc." Replace the sentence with the following: If the DST system is unable to clean close then groundwater monitoring will be required for post closure care. Also, groundwater monitoring can be required under the circumstances described in the Chapter 5 NODs.	
		Response: accept text will be revised to include sentence above.	a .
· .		Ecology Response: Accept. The compliance schedule needs to include the schedule for the development and submittal of the post closure groundwater monitoring plan.	
28.	Page 11-2, line 35-42	Comment Section 11.3, page 11-2, 4 th paragraph: The use of dangerous waste identified in the part A as a basis for non-radioactive emission [estimates] is not adequate. The part A does not specifically identify a number of compounds that are or could be present in the waste. All toxic constituents resulting from the closure process must be listed and their emission rates must be known/estimated as a function of time. For example, N-nitrosodimethylamine is an important toxic air pollutant, but is not represented by a waste code on the part A directly. Even if it were to be an	
		Underlying Hazardous Constituent of the waste it would not be identified in the part A." Response: accept text will be revised to state that the basis for the non-rad NOC will include the DST Part A and other records/ data as appropriate.	
		Ecology Response: Accept. NOC is currently being developed and needs to be incorporated appropriately.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
29.	Page 11-3, line 4-9	Clarify for enforceability. Poorly written, unclear. Response: accept will revise to clarify Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
30.	Page 11-3, line 31, 32	The application states that some areas of soil contamination associated with leaks from ancillary equipment probably will require landfill closure. Document in the appendix of releases the leaks that have occurred from the ancillary equipment which may require landfill closure and justify why they cannot be removed. Response: reject, Appendix 11A already lists the known releases from DST ancillary equipment. Depending on the actual extent of these releases the affected areas may require a landfill closure. Characterization of affected areas will occur as part of the closure process as necessary. Ecology Response: Appendix 11A will become Appendix 6B, as the DST Chapter 11 will be come a compliance schedule for SEPA and closure.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
31.	Section 11.4	The isolation of DST system components (tanks, pipelines, ancillary equipment) is a closure action. Give a schedule for closure for all pre-2005 ancillary equipment and pipelines. WAC 173-303-610 (4)(a) states that within 90 days after receiving the final volume of waste, the owner or operator must treat, remove from the unit or facility, or dispose of on site, all dangerous waste in accordance with the approved closure plan. WAC 173-303-610(4)(b) states that the equipment must be closed within 180 days after receiving the final volume of dangerous waste. Ecology may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating dangerous waste management unit or facility. Response: partial accept, isolation is an element of M-48-07. The commitment associated with this milestone is that all components not being used post 2005 will require stabilization, isolation and monitoring. M-48-07 further commits DOE to describe final disposition of each component within a RCRA closure plan. Appendix 11 B provides a list of all pre 2005 DST components and whether they will be closed under DST or SST. The DST Closure Plan will be revised to generically describe final disposition of those component that will be closed	WAC 173-303-610 (4)(a) & (b), 610 (4)(e)(B)(iii)
		under the DST Closure Plan. Ecology Response: Appendix 11 B will become Appendix 4E as Chapter 11 will become a compliance schedule for SEPA and closure.	
32.	Page 11-4, line 2	Correct line 2. Closure for the 204-AR WUS will include meeting tank standards (see section 11.4.1). No Section exists called 11.4.1	
		Response: accept, "11.4.1" will be changed to "11.5.1." Ecology Response: Reject. The compliance schedule needs to include the 204-AR facility also. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
33.	Page 11-4, line 22-23	Replace the sentence with: Some DST system components for which DOE is not seeking a final RCRA Part B permit will be closed under the final status SST Closure Plan. These components have been identified in the Appendix 11B.	
		Response: accept, will revise accordingly. Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
34.	Section 11.5.1.1, Page 11-4	Insert all the information required by the Washington Administrative Code. This section on the 204-AR Waste Unloading Station does not contain enough information to meet the requirements of WAC -610 (3) (a).	WAC 173-303-610 (3) (a)
		Response: reject, Section 11.0 proposes that a "final closure plan" will be developed prior to closure activities. Without having a full (life-cycle) operational history, closure plan development at this time is limited. Section 11.5.1.1 proposes the closure frame work that should be necessary to clean close 204 AR. Actual requirements and performance standards will be formalized and submitted to Ecology for approval prior to closure.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
35.	Section 11.5.2 Page 11-4	Retrieval is a closure action. This section is the start of the guidance section [I-1b (2)]. Move section 11.6 - Maximum Extent of Operation [I-1b(1)] on page 11-6 before this section.	· · · · · · · · · · · · · · · · · ·
		Waste retrieval from the DSTs to the Waste Treatment Plant needs to be addressed in this section.	
		Response: reject, Section 11.5.2 Waste Retrieval is already a subsection of 11.5; Closure Activities ([I-1b]). Section 11.6, Maximum Extent of Operations ([I-1b (1)]) follows the section on closure activities per Ecology guidance 95-402.	
		AP-101 is the staging/preparation tank for waste feed delivery to the WTP. Details on design, planned upgrades and operation of this tank are described in Chapter 4.0. The purpose of Section 11.5.2 is to indicate the potential of using SST retrieval technology for retrieving DSTs. Specific detail for sequencing and approach for DST retrieval is not yet known.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
36.	Page 11-4, line 39-42	Remove this statement about alternative treatments as Ecology has not approved this pathway for waste. Response: partial accept, "will" will be changed to "may"	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	•
37.	Section 11.5.3, Page 11-5	Remove the wording that is not enforceable such as "would be" and change to "will be".	
		Response: accept will revise accordingly	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
38.	Section 11.5.4	Clarify the regulatory requirement that section 11.5.4 is meeting. The title on the section is confusing. Is this section describing the removal of tanks and soil under tanks?	
		Response: This information is being provided in accordance with WAC-173-303-610(3). Section 11.5.4 is a subsection to Section 11.5.3 'Clean Closure' and therefore will be renumbered to 11.5.3.1. The section is providing a conceptual approach for tank and soil removal to achieve clean closure which was initially developed for SST closure but could be used for DST closure as well. This approach may be more suitable in cases were a DSTs and SSTs are colocated (S and SY farm)	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
39.	Page 11-5, line 21	Remove SSTs. The statement that tanks and ancillary equipment must be removed to accomplish clean closure is incorrect. Tanks and equipment can remain in place if they are decontaminated to a "clean debris surface" as defined in 40 CFR 268.45 and the wastes are managed as dangerous wastes. Response: accept will remove "SSTs." Also will revise to correctly explain clean closure for tank systems. Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	WAC 173-303- 640 (8)(a). WAC 173-303- 610(2)(b)
40.	Page 11-5, line 21	The excavation of all soil in the tank farms down to the soil/groundwater interface is an odd statement. This statement seems to suggest that large releases have occurred which have impacted the vadose zone and groundwater. Is this true for the DST system?	WAC 173-303- 610 (2) WAC 173-340-
		Replace the statement with: The soil will be cleaned-up to meet performance standards required by WAC 173-303-610 (2) using a permanent solution to the maximum extent practicable in accordance with WAC 173-340-360 (2)(b)(i) and -360(3).	360 (2)(b)(i) and
		Response: partial accept, will revise to replace text on excavation with reference to -303-610, however WAC-173-303-360 does not apply to the DSTs (see response # 24 above)	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	

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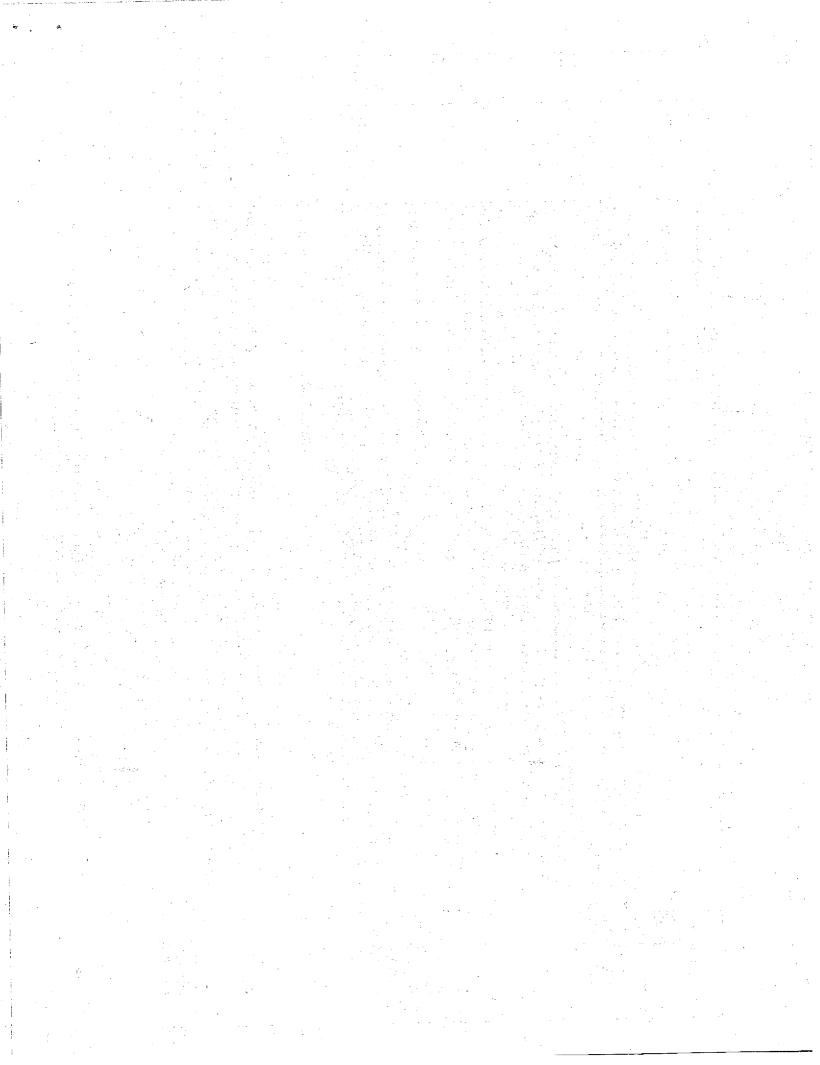
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No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
45.	Section 11.7	Provide details with diagrams on the transferring of waste to the Waste Treatment Plant (WTP). This section does not address the removal of DST waste to the WTP. How will the waste be removed from the DST? The current retrieval information describes an SST retrieval. Response: accept, will add information regarding waste transfer from DST to WTP will be added.	WAC-610 (3) (a)(iv)
		SST retrieval information provided in this section is to present current retrieval methodology. Successful retrieval technology developed for the SSTs will likely be used for the DSTs as applicable.	
		Ecology Response: Reject. Chapter 11 will become a compliance schedule so this NOD is no longer needed. (Note: Retrieval actions in the DST may not use the same technology as the SSTs.)	
46.	Section 11.7, Page 11-7, line 2-4	Reword the paragraph as follows: Closure of the DST system will include the removal of as much supernatant, sludge, and hard heel waste from the tanks, ancillary equipment, pipelines and contaminated soil using the limits of technology. Response: accept will revise accordingly	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
47.	Page 11-7, line 13-17	This paragraph does not make clear that the permit application is for the DST system. Please clarify for enforceability. Response: accept, the purpose for the information provided in this section is to briefly consider current retrieval technologies that are being considered. Retrieval to date has been focused on the SSTs, however such technology if found to be successful could be used for retrieving the DSTs. Will add a sentence to the beginning of paragraph 3 (line 13) to clarify that although the information provided concerns retrieval of the SSTs it is being provided to enhance information provided for DST closure.	
- 1		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	,

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
48.	Section 11.8, Page 11-8, line 11 - 30	Rewrite the description of the three options for treating hazardous debris as worded in the Ecology "Guidance for Clean Closure of Dangerous Waste Facilities" August 1994, Publication #94-111.	
		Response: accept, Publication #94-111 is guidance only. Wording in this section will be compared to wording in #94-111. Text will be revised if necessary.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
49.	Page 11-8, line 34, 35,36	Rewrite sentence as follows: "For contaminated media the contained-in policy requires that an Ecology approved statistically based sampling plan be utilized for obtaining the data to support a contained-in demonstration."	
		Response: accept, will revise accordingly.	
· · ·		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	i di
50.	Page 11-9, line 9	Provide the sampling methodology document that is referenced for Ecology review (DOE/RL91-28) or a description of the documents methodology. Ecology also has a guidance document for sampling called "Guidance on Sampling and Data Analysis Methods, publication # 94-49.	WAC 173-303- 610(3)(a)(vi)
		Response: accept, A copy of the Hanford Facility Dangerous Waste Permit, General Information Portion (DOE/RL-91-28) should have been transmitted to Ecology. However this document will be made available to Ecology if necessary.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
		The compliance schedule will include the Sampling Analysis Plan (SAP) in the closure plan. The SAP will be developed through a collaborative process.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
51.	Section 11.9, Page 11-9	The permit application is missing the sampling plan to determine extent of contamination and to confirm decontamination of structures and soils as required by WAC 173-303-610 (3)(a)(v) of a closure plan.	WAC 173-303- 610 (3)(a)(v)
us - vois		Response: reject, since there is considerable uncertainty surrounding the closure approach for the DST system, a SAP written for closure of a DST today, would have limited utility: "Preclosure" activities (i.e., Stabilization, Isolation and Monitoring) are covered under the M-48-07 milestone and identified through appendix 11B. Full closure under RCRA and WAC-173-303 will require detailed planning documents integrating CERCLA requirements due to the fact that the DST system is located within a CERCLA operable unit.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	
52.	Section 11.10, line 14-17	Clarify the statement about the 242-A Evaporator being evaluated for concentration of DST system waste. Doesn't the 242-A Evaporator currently concentrate DST waste?	
		Response: accept will revise the sentence to remove 242 A. Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
53.	Section 11.10, Page 11-10	Provide a schedule for closure of the DST systems including ancillary equipment both pre and post 2005 system components. WAC 173-303-610 (3)(a)(vii) requires a closure schedule. The DST closure schedule must be provided with the permit. The closure schedule then can be changed through the permit modification in accordance with the applicable procedures in WAC 173-303-800 and -840.	WAC 173-303- 610 (3)(a)(vii)
		Response: Section 11.5.5 Ancillary Equipment Removal Description, discusses conceptually the process for demolishing and removing ancillary equipment including pipelines. Additionally a reference is provided to a detailed study on the AX Farm equipment which includes more detail on this topic.	
		Ecology Response: Reject. Provide a compliance schedule in Chapter 11 identifying the appropriate dates for completion of a NEPA EIS to satisfy SEPA and the associated closure plan submittal(s). Provide the baseline schedule using M-062-00 (12/31/28) for the secession of the DST operations.	

No.	Position in Document	Comments/Response Chapter 11	Regulatory Citation
54.	Section 11.10, Page 11-9, 2 nd Paragraph	Revise section 11.10.1 paragraph 2 to read: Typical methods being used for tank waste sampling include gas phase samplers/monitors, liquid grab sampler, auger sludge sampler, and push and rotary sludge/saltcake sampling. Characterization of tank waste is done in accordance to specific Data Quality Objective (DQO). Once retrieval of sludge and supernatant is complete, the hard-heel residual waste will require sampling to determine the appropriate treatment process. Response: accept, will revise accordingly.	
		Ecology Response: Accept; Chapter 11 will become a compliance schedule so this NOD is no longer needed.	
55.	Section 11.16	Remove all references to post closure. The information is incomplete and it is not required at this time for a non-regulated unit. Information currently located in Chapter 5 is on post closure care and also needs to be removed. Response: accept, will revise accordingly.	WAC 173-303- 640(8)(b), -665(6), -610 (7,8,9,10,11)
		Ecology Response: As the DST system is not a "regulated unit" (see WAC 173-303-040 definition), groundwater monitoring is not required. However, if the owner operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in WAC 173-303-640(8)(a), then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills. To date, the U.S. Department of Energy (USDOE) has not made this demonstration for the DSTs. Although a post-closure care and monitoring plan is not required at this time, the USDOE closure compliance schedule must clearly identify when and how the WAC 173-303-640(8) demonstration will be made for the DST system.	
56.	line 21-25	Replace with the following: Post-closure care is required when dangerous wastes or waste residues are left in place at a closed dangerous waste management unit. Ecology considers dangerous wastes or waste residues left in place when dangerous waste constituents, residues, or decomposition products at the closed unit remain at concentrations above numeric cleanup levels determined using residential exposure assumptions under MTCA method A or B. Response: accept, will revise accordingly.	the Ecology "Guidance for Clean Closure of Dangerous Waste
		Ecology Response: See Comment #55.	Facilities"



No.	Position in Document	Comments/Response Miscellaneous	Regulatory Citation
1.	Forward, Chapters 1,2,3,4,5	Delete the paragraph in the forward and chapters 1, 2, 3, 4, and 5 of the application discussing the Atomic Energy Act of 1954 and replace with: "Where information regarding treatment, management, and disposal of the radioactive source, byproduct material and/or special nuclear components of mixed waste (as defined by the Atomic Energy Act of 1954, as amended) has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit modification or chapter 70.105 RCW." Response: reject, the AEA exclusion provided within the application is appropriate based on ORP/CHG legal review. Ecology Response: Reject. Ecology will use the language provided above for the DST permit AEA language.	WAC 173-303- 806(4)(xix)
2.	Application Checklist	Remove or correct the application checklist that was submitted with the application. The checklist is inaccurate. Response: accept, checklist will be removed. Ecology Response: Accept.	

No.	Position in Document	Comments/Response Miscellaneous	Regulatory Citation
3.	General	On August 31, 2000, the Tri-Parties entered into a Framework Agreement addressing the regulatory framework for disposal of TSCA-regulated Polychlorinated Biphenyl (PCB) remediation waste in Hanford tank wastes. A key	Hanford PCB Framework
		principle established in this agreement is that "The federal Resource Conservation and Recovery Act [] as implemented through approved State programs [is] expected to be the key regulatory drivers for tank waste	Agreement
		retrieval, transfers, pretreatment []. The framework document intends that the principle regulatory driver for management and disposal of tank wastes, and the basis for the anticipated TSCA risk-based disposal approval, will be	
	·	the Hanford site-wide Resource Conservation and Recovery Act (RCRA) (permit, specifically including those parts addressing the DST tank system, the 242-A Evaporator, the Effluent Treatment Facility and the Waste Treatment Plant.	
		To support effective implementation of the Framework Agreement DST permit conditions must consider compliance with RCRA standards with respect to polychlorinated biphenyls, defined as a dangerous waste constituent via WAC	
		173-303-9905. In some instances, such as closure performance standards and waste analysis/waste acceptance plans, specific consideration of PCB constituents is likely to be warranted. On other instances, training plans, for example,	
		general requirements that do not specifically address PCBs may be adequate to demonstrate protection of human health and the environment. Ecology expects that the DST permit applicants review the permit application to insure that all	
		aspects of waste management and the permit application appropriately demonstrate protection of human health and the environment with respect to PCBs.	
		Response: accept, pursuant to the PCB Framework Agreement, once the DST Risk Based Disposal Authorization (RBDA) is finalized PCB requirements will be incorporated into the DST Part B application, as appropriate.	
		Ecology Response: Partially accept. "RCRA is expected to be the key regulatory driver for requirements applicable to DSTs." The response seems to be taking the position that TSCA requirements will be developed through the RBDA	
		process, and then moved into the permit. However, the Hanford PCB Framework Agreement reflects an agreement that Toxic Substances Control Act of 1976 (TSCA) expects that a risk-based disposal application will reflect a	
		technical approach developed through the RCRA process. Wherever possible, specific standards are developed through RCRA, which are then evaluated with respect to TSCA requirements through the RBDA process. The U.S.	
		Environmental Agency has noted that it may be necessary to supplement the existing DST portion of the Framework Agreement RBDA application to reflect approaches that may be developed through the RCRA permitting process."	

No.	Position in Document	Comments/Response Miscellaneons	Regulatory Citation
4.	General	A description of the Notification System and description of the procedure (TFC-ESHQ-ENV-FS-C-01) requirements needs to be added to the DST permit.	
		Response: accept will add generic description of TFC-ESHQ-ENV-FS-C-01 including notification system.	
		Ecology Response: Provide text for clarity and enforceability. Whenever procedures are referenced provide:	-
		 A summary of the document's overall purpose. Summarize in the application how the document is applicable. (It meets the regulation by doing X,Y,Z) When referencing give page numbers that are applicable to meeting the regulation/requested information. 	

No.	Position in Document	Comments/Response SEPA Check list	Regulatory Citation
1.	General - SEPA	Provide a State Environmental Policy Act (SEPA) checklist that includes analyses of Double Shell Tank (DST) closure and post-closure or evidence that the Washington State Department of Ecology and the U.S. Department of Energy, Office of River Protection have agreed that an Environmental Impact Statement (EIS) is appropriate. The SEPA checklist is required to be submitted to Ecology with a permit application, unless Ecology and the permittee agree that	WAC 173-802- 060(1)
		an EIS is required, SEPA compliance has been completed, or SEPA compliance has been initiated by another agency. The Tank Waste Remediation System EIS did not address the full scope of the activities included in Rev. 0b of the Double Shell Tank Part B permit application (i.e., closure); therefore, additional analyses of the environmental and	
		public health impacts of closing the DST farms must be addressed. Also, If DOE chooses to submit the 1991 SEPA checklist, the checklist will need to be updated to reflect the current facility. (Some examples of the deficiencies in the 1991 SEPA checklist are: Under A.8 Environmental information, no mention of the TWRS EIS and supplements. Under A.9 references to the Hanford Waste Vitrification Plant, the PUREX	
		Permit, the B Plant Permit, and the Grout Facility permit should be omitted. Under A. 10, update the air permit. Update item A. 11 to omit disposal of LAW as grout in the vaults. Update item A. 11 to reflect transfer lines between areas, equipment to be removed from service, etc.)	
		Response: Submission of a SEPA checklist with the dangerous waste application is not a requirement of the Washington State Department of Ecology (Ecology) promulgated dangerous waste regulations, Washington Administrative Code (WAC) 173-303. There is no waiver of federal sovereign under federal NEPA requiring federal compliance with state SEPA requirements. U. S. Department of Energy (DOE) and Ecology were co-preparers of the	
		1996 Tank Waste Remediation System (TWRS) Environmental Impact Statement (EIS) which Ecology adopted under SEPA. The 1996 TWRS EIS authorized continued operations (including waste transfer operations) in both SSTs and DSTs but did not analyze tank closure. As Ecology is aware, DOE is in the process of preparing a federal EIS under NEPA to address tank closure-however, this federal EIS and it's associated ROD will probable not be completed by	
		DOE until April 2005. The issue of whether Ecology must prepare a SEPA EIS to issue the DST Part B permit under state SEPA regulations is an internal Ecology matter which DOE is not competent to address. Ecology Response: Reject. The Washington State Department of Ecology has clear authority to require the U.S.	
· : ·		Department of Energy Office of River Protection (USDOE-ORP) and its contractor, CH2M Hill Hanford Group, Inc. to provide an Environmental Checklist in support of their application for a final status dangerous waste permit for the operation and closure of the Double Shell Tank systems on the Hanford Site in Washington State.	

No.	Position in Document	Comments/Response SEPA Check list	Regulatory Citation
-		Pursuant to the Federal government's waiver of sovereign immunity in RCRA, 42 U.S.C. § 6961, agencies of the	,
	*	United States are subject to and required to comply with "all Federal, State, interstate, and local requirements, both	er P
		substantive and procedural (including any requirements for permits), respecting control and abatement of solid waste or hazardous waste disposal in the same manner, and to the same extent, as any person is subject to such	· .
		requirements" The term "requirement" includes not just substantive environmental standards; it also includes "the	
-		procedural means by which those standards are implemented", <u>Parola v. Weinberger</u> , 848 F.2d 956, 961 (9th	
		Cir. 1988); United States v. State of New Mexico, 32 F.3d 494, 497 (10th Cir. 1994).	
		Washington's hazardous waste program – including its Dangerous Waste Regulations at Washington Administrative	
		Code Chapter 173-03— is implemented in lieu of federal RCRA requirements. Pursuant to the Dangerous Waste	
		regulations, USDOE is required to obtain a dangerous waste permit. Ecology cannot make a permit decision unless it	t •.
		complies with the State Environmental Policy Act (SEPA), Ch. 43.21C and implementing regulations at Chapters 197-	
		11 and 173-800. Thus, SEPA is a necessary procedural means by which the dangerous waste regulations are	
	ş	implemented. As such, USDOE and its contractors must comply with any SEPA obligations imposed directly on them.	
	•	For proposed actions that are not categorically exempt under SEPA, WAC 173-310 and .315 require Ecology to use an	A
		environmental checklist in order to make a threshold determination A decision on a Part B permit application for a	
		dangerous waste treatment and storage facility is an action per WAC 197-11-704(2)(a)(i) that is not categorically	
		exempt under SEPA. Because Ecology and ORP did not agree that an EIS is required to cover DST operation and	
ļ		closure, WAC 173-802-060 directs Ecology to require the permit applicant to complete a SEPA checklist. USDOE has provided SEPA checklists to Ecology in regards to other Hanford permit applications, and its objection in this context	
-[•	has no basis.	
	•	indo no vasis.	
		The USDOE specifically excluded closure of the Double Shell Tanks (DSTs) from the proposed action in the "Notice	
.		of Intent To Prepare an Environmental Impact Statement for Retrieval, Treatment, and Disposal of Tank Waste and	
ļ	•	Closure of Single-Shell Tanks at the Hanford Site, Richland, WA," 68 Fed. Reg. 1053. The USDOE excluded closure	
}		of tanks from the scope of the Tank Waste Remediation System Hanford Site, Richland, Washington, Final	
		Environmental Impact Statement (TWRS EIS), because the USDOE asserted that insufficient information was available	
. 1		to make a decision on how to close tanks (TWRS EIS Volume Two, Appendix B, Section B.5.0 Tank Closure, p. B-	
	•	157). Therefore, Ecology directs USDOE to take the following actions:	
}		Action 1: The U.S. Department of Energy Office of River Protection will submit a SEPA checklist that describes the	
		Double Shell Tank System current configuration by no later than April 7, 2005.	
	**		••

No.	Position in	Comments/Response	Regulatory
	Document	SEPA Check list	Citation
		Action 2: The U.S. Department of Energy Office of River Protection will supplement its permit application by providing a schedule for preparation of an Environmental Impact Statement that addresses Double Shell Tank System and Waste Management Unit closure. The EIS alternatives will include the no-action alternative and closure of the tank system per WAC 173-303-640(8) at a minimum.	